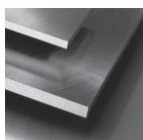


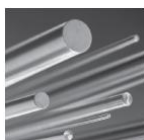
Steel grade

Material No. / Werkstoff-Nr.	PREMIUM 1.4301
Description	X5CrNi18-10
AISI/SAE	304; S30400
Search for alternatives in the ABRAMS STEEL GUIDE®	www.steel-guide.eu/alternatives/304

Specifications



€co-Präz* [€co]
L: 500 mm



Precision round steel
without machining allowance [PRS]
bright drawn / ground, ISO h9
L: 1.000 mm

Chemical composition AISI/SAE 304 (reference value %)

C	Si	Mn	P	S	Cr	Ni	N
0 - 0,7	0 - 1,0	0 - 2,0	0 - 0,045	0 - 0,015	17,5 - 19,5	8,0 - 10,5	0 - 0,11

Physical properties

Hardness (delivery condition)	max. 215 HB, annealed				
Tensile strength R_m (as received condition)	approx. 690 N/mm ²				
Working hardness	max. < 20 HRC				
Thermal expansion coefficient $10^{-6}m/(m \cdot K)$	20 - 100°C	20 - 200°C	20 - 300°C	20 - 400°C	20 - 500°C
	16,0	16,5	17,0	17,5	18,0
Thermal conductivity $W/(m \cdot K)$	20 °C				
	15,0				

Technical properties

Corrosion resistant austenitic stainless chrome-nickel-steel with good processability and attractive appearance (ground-high-gloss polished). It has excellent deep drawing properties, is weldable and wear resistant but non-magnetisable and limited machining properties. Average mechanical properties.

Applications

Food industry, photographic industry, paint industry, oil industry, soap industry, paper industry, textile industry, machine construction, turned parts, fittings construction, kitchen equipment, decoration.

Heat treatment

Soft annealing	Temperature	Cooling	Hardness
	1000 - 1080°C	Air	max. 215 HB

ABRAMS PREMIUM STEEL

is a registered trademark of
Abrams Engineering Services GmbH & Co. KG
Hannoversche Str. 38 · 49084 Osnabrueck / Germany
Managing Director: Dipl.-Wi.-Ing. Dr. Juergen Abrams

Amtsgericht Osnabrueck / Germany, HRA 6865
VAT-No.: DE 221940667
General Partner: Abrams Engineering Verwaltungs GmbH
Amtsgericht Osnabrueck / Germany, HRB 20019

T: +49 (0) 5 41/3 57 39-0
F: +49 (0) 5 41/3 57 39-39

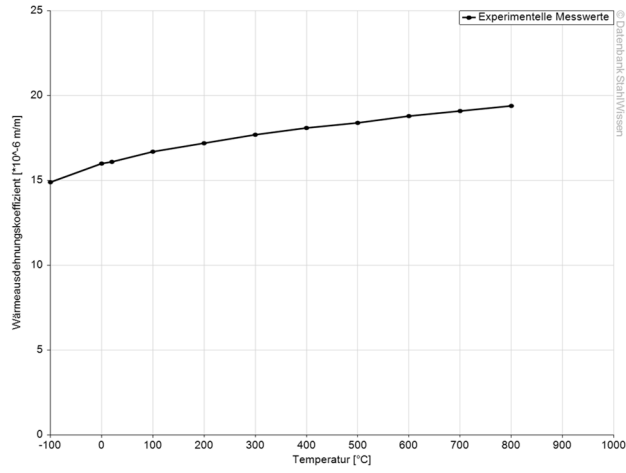
sales@premium-steel.eu
www.premium-steel.eu
www.shop.premium-steel.eu
www.steel-guide.eu

www.premium-steel.eu/news



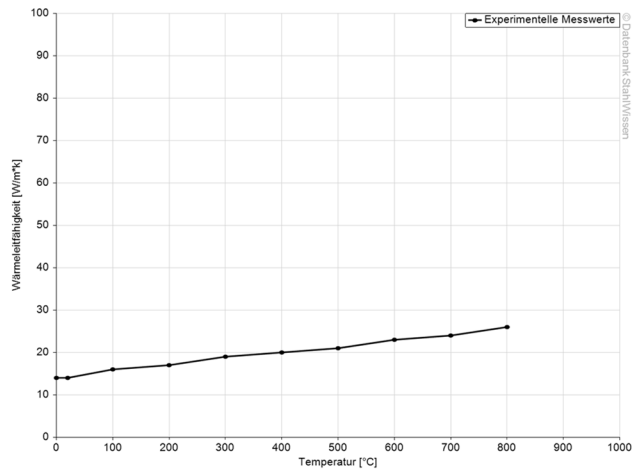
Thermal expansion coefficient diagram

Werkstoff: X5CrNi18-10, 1.4301



Thermal conductivity diagram

Werkstoff: X5CrNi18-10, 1.4301



ABRAMS PREMIUM STEEL

is a registered trademark of
 Abrams Engineering Services GmbH & Co. KG
 Hannoversche Str. 38 · 49084 Osnabrueck / Germany
 Managing Director: Dipl.-Wi.-Ing. Dr. Juergen Abrams

Amtsgericht Osnabrueck / Germany, HRA 6865
 VAT-No.: DE 221940667
 General Partner: Abrams Engineering Verwaltungs GmbH
 Amtsgericht Osnabrueck / Germany, HRB 20019

T: +49 (0) 5 41/3 57 39-0
 F: +49 (0) 5 41/3 57 39-39

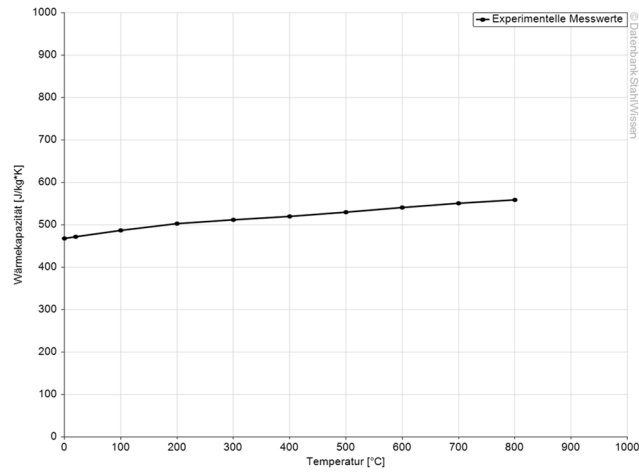
sales@premium-steel.eu
 www.premium-steel.eu
 www.shop.premium-steel.eu
 www.steel-guide.eu

www.premium-steel.eu/news



Thermal capacity diagram

Werkstoff: X5CrNi18-10, 1.4301



The data shown here is to be used only as an indication of the statistics, thus we accept no liability.
Diagrams are taken from Datenbank StahlWissen Dr. Sommer Werkstofftechnik
Issued: 2012

